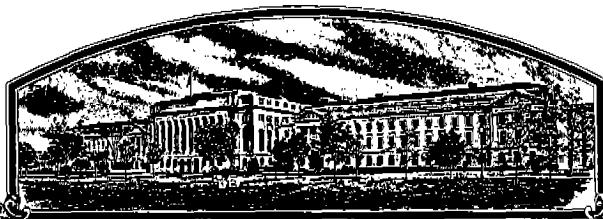


No.

8200108



# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

## Royal Sluis

Whereas, THERE HAS BEEN PRESENTED TO THE  
Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS. UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *eighteen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT (U.S.C. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

CAULIFLOWER

'Andes'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington this 21st day of July in the year of our Lord one thousand nine hundred and eighty-three.

Attest

*Kenneth M. ...*  
Commissioner  
Plant Variety Protection Office  
Grain Division  
Agricultural Marketing Service

*John R. Block*  
Secretary of Agriculture

# APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: See Reverse.

No certificate for plant variety protection may be issued unless a completed application form has been received (5 U.S.C. 553).

1a. TEMPORARY DESIGNATION OF VARIETY  Andes		1b. VARIETY NAME  Andes		FOR OFFICIAL USE ONLY PV NUMBER <b>8200108</b>	
2. KIND NAME  Cauliflower		3. GENUS AND-SPECIES NAME  brassica oleracea var botrytis		FILING DATE 4/21/82	TIME 2:30 P.M.
4. FAMILY NAME (BOTANICAL)  Crucifers		5. DATE OF DETERMINATION  august 1977		FEE RECEIVED \$ 500.00 \$ 250.00	DATE 4/21/82 6/28/83
6. NAME OF APPLICANT(S)  Royal Sluis		7. ADDRESS (Street and No. Or R.F.D. No. City, State, and ZIP Code)  P.O. Box 22, 1600 AA ENKHUIZEN, Holland		8. TELEPHONE AREA CODE AND NUMBER  02280:2741	
9. IF THE NAMED APPLICANT IS NOT A FIRM, FORM OF ORGANIZATION: (Corporation, partnership, association, etc.)  association		10. IF INCORPORATED, GIVE STATE AND DATE OF INCORPORATION		11. DATE OF INCORPORATION	
12. NAME AND MAILING ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS:  RJ Royal Sluis, P.O. Box 22, 1600 AA ENKHUIZEN, Holland					

## 13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:

- ☒ 13A. Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)
- ☒ 13B. Exhibit B, Novelty Statement,
- ☐ 13C. Exhibit C, Objective Description of the Variety (Request form from Plant Variety Protection Office.)
- ☒ 13D. Exhibit D, Additional Description of the Variety.

14a. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? (See Section 83(a).) (If "Yes," answer 14B and 14C below.)  
YES ☐ NO ☒

14b. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?  
a YES ☐ NO ☒

14c. IF "YES" TO 14B, HOW MANY GENERATIONS OF PRODUCTION BEYOND BREEDER SEED?  
☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED

15a. DID THE APPLICANT(S) FILE FOR PROTECTION OF THIS VARIETY IN OTHER COUNTRIES? ☐ YES ☒ NO (If "Yes," give name of countries and dates)

Holland 5/1/80

15b. HAVE RIGHTS BEEN GRANTED THIS VARIETY IN OTHER COUNTRIES? ☐ YES ☒ NO (If "Yes," give name of countries and dates.)

16. DOES THE APPLICANT(S) AGREE TO THE PUBLICATION OF HIS/HER (THEIR) NAME(S) AND ADDRESS IN THE OFFICIAL JOURNAL? ☒ YES ☐ NO

17. The applicant(s) declare(s) that a viable sample of basic seed of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Act,

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties,

8th March 1983  
(DATE)

J.G. Timmerman  
(SIGNATURE OF APPLICANT)

(DATE)

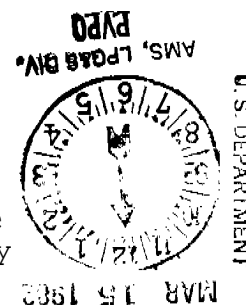
(SIGNATURE OF APPLICANT)

## INSTRUCTIONS

**GENERAL:** Send an original copy of the application and exhibits, at least 2,500 viable seeds, and \$500 fee (\$250 filing fee and \$250 examination fee) to U.S. Dept. of Agriculture, Agricultural Marketing Service, Livestock, Poultry, Grain and Seed Division, Plant Variety Protection Office, National Agricultural Library Building, Beltsville, Maryland 20705. (See section 180.175 of the Regulations and Rules of Practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

### ITEM

- 5 Give the date the applicant determined that he had a new variety based on (1) the definition in section 41(a) of the Act and (2) the date a decision was made to increase the seed.
- 13a Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of **selection** and multiplication; (3) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4) evidence of uniformity and stability.
- 13b Give a summary statement of the variety's novelty. **Clearly** state how this novel variety may be distinguished from all other varieties in the same crop. If the new variety most closely resembles one or a group of related varieties: (1) identify these varieties and state all differences objectively; (2) attach statistical data for characters expressed numerically and demonstrate that these differences are significant; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty.
- 13c Fill in the Exhibit C, Objective Description form, for all characteristics for which you have adequate data.
- 13d Describe any additional characteristics that are not described, or whose description cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the description of characteristics that are difficult to describe, such as, plant habit, plant color, disease resistance, etc.
- 14a If "YES" is specified (seed of this variety be sold by variety name only as a class of certified seed) the applicant may NOT reverse his affirmative decision after the variety **has either** been sold and so labeled, his decision published, or the certificate has been issued. However, if the applicant specified "**NO**," he may change his choice. (See section 180.16 of the Regulations and Rules of Practice.)
- 15a See section 42 of the Plant Variety Protection Act and section 180.7 of the Regulations and Rules of Practice.



cauliflower AndesExhibit 13A pedigree

Andes has been selected from a cross of Dok Elgon with an earlier, white flowering breeding line. Through family selection a line selection in a later stage, Andes has been derived.

Andes appears to be stable and uniform through several years of multiplication.

Exhibit 13B, novelty statement

Andes is most **similar to** Dok Elgon, but it differs from Dok Elgon because it is white flowering, while Dok Elgon is yellow flowering.

Andes is also similar to Delira, but it differs in its leaves. The leaves of Andes are smooth and Delira's are wavy. At that Delira is earlier maturing. In 12 plantings over 3 years (2 summers and 2 autumns), 50% harvest was 7 days later than Delira (s = 13, n = 12).

Exhibit 13DAdditional description

Andes is a mid-season variety, selected in summer and early fall cuttings. Curds are deep for USA standards and very tight. Harvest period is concentrated and because of the limited plant spread, Andes is suited to close spacing.

APPENDUM TO EXHIBIT A (PER APPLICANT'S LETTER OF 3/23/83)  
 'NO VARIANTS HAVE BEEN OBSERVED IN 'ANDES' THROUGH THE LAST  
 2 YEARS OF MULTIPLICATION. 'ANDES' CAN BE MAINTAINED AND  
 REPRODUCED THROUGH SEED WITHOUT CHANGING ITS CHARACTERISTICS  
 RJS 3/28/83

CORM GR-470-30  
(7-1-74)U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
GRAIN DIVISION  
HYATTSVILLE, MARYLAND 20782  
**OBJECTIVE DESCRIPTION OF VARIETY**  
**CAULIFLOWER**  
**(Brassica oleracea var. botrytis)**

NAME OF APPLICANT(S)

Royal Sluis

VARIETY NAME OR TEMPORARY DESIGNATION

Andes

ADDRESS (Street and No., or F.F.D. No., City, State, and ZIP Code)

P.O. Box 22, 1600 AA ENKHUIZEN, Holland

FOR OFFICIAL USE ONLY

PVPO NUMBER

8200108

Place the appropriate number that describes the varietal character of this variety in the boxes below.  
Place a zero in first box (e.g. 0 8 9 or 0 9 ) when number is either 79 or less or 9 or less.

## 1. REGION OF ADAPTATION: (Where best adapted in the U.S.A.)

<input type="text" value="6"/>	= NORTHWEST	2 = NORTHCENTRAL	3 = NORTHEAST	4 = SOUTHEAST	5 = SOUTHWEST
6	= MOST REGIONS				

## 2. SEASON: (Main crop)

<input type="text" value="4"/>	= LATE FALL - EARLY WINTER	2 = LATE WINTER - EARLY SPRING
3	= LATE SPRING - EARLY SUMMER	4 = LATE SUMMER - EARLY FALL

## 3. MATURITY: (Days to 50% harvest)

<input type="text" value="9"/> <input type="text" value="5"/>	FROM TRANSPLANTS	<input type="text" value="2"/> <input type="text" value="0"/>	NO. DAYS HARVESTING PERIOD
<input type="text" value="8"/> <input type="text" value="5"/>	FROM DIRECT SEEDING		

## 4. PLANT HEIGHT: (At harvest)

<input type="text" value="2"/> <input type="text" value="4"/>	CM. FROM SOIL LINE TO TOP OF CURD		
<input type="text" value="6"/>	CM. TALLER THAN	<input type="text" value="1"/>	1 = EARLY ERFURT 2 = SUPER SNOWBALL A
<input type="text" value="0"/>	CM. SHORTER THAN	<input type="text" value="3"/>	3 = SNOWBALL Y
		<input type="text" value="4"/>	4 = VEITCH AUTUMN GIANT
		<input type="text" value="5"/>	5 = OTHER (Specify) <u>Dok El gon</u>

## 5. LEAVES:

<input type="text" value="2"/> <input type="text" value="3"/>	TOTALNUMBER	<input type="text" value="5"/> <input type="text" value="0"/>	CM. AVERAGE LENGTH AT MID-POINT OF PLANT (Including <i>Pe tiole</i> )
		<input type="text" value="2"/> <input type="text" value="6"/>	CM. AVERAGE WIDTH AT MID-POINT OF PLANT
<input type="text" value="1"/>	1 = STRAIGHT MARGINS 2 = WAVY MARGINS	<input type="text" value="2"/>	1 = THIN VEINS 2 = THICK VEINS
<input type="text" value="1"/>	1 = MOSTLY SESSILE 2 = MOSTLY PETIOLATE 3 = EQUALLY SESSILE AND PETIOLATE		
<input type="text" value="3"/>	COLOR: 1 = LIGHT GREEN 2 = MEDIUM GREEN (Snowball No. (November) 3 = DARK GREEN (Lecerf Group) 4 = BLUSH GREEN	<input type="text" value="0"/> <input type="text" value="2"/>	1 = UPRIGHT, EXPOSE CURD 2 = INCURVED, PARTIALLY COVER CURD 3 = COMPLETELY COVER CURD (Self blanching)

## 6. CURD:

<input type="text" value="1"/> <input type="text" value="8"/>	CM. DIAMETER	<input type="text" value="1"/> <input type="text" value="0"/>	CM. DEPTH
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6. CURD:

1

1 = TIGHT

2 = LOOSE

2

1 = SMOOTH

2 = KNOBBY

COLOR:

1 = BRIGHT WHITE

2 = CREAMY, DULL WHITE

3 = PURPLE-GREEN

3

SHAPE:

1 = FLAT

3 = DOME

2 = SEMI-DOME

1

1 = NO LEAVES IN CURD

2 = LEAVES IN CURD

8200108

7. DISEASE RESISTANCE: (0 = Not Tested; 1 = Susceptible, 2 = Resistant. Specify race if known)

0

BLACK SPOT

0

PHYTOPHTHORA ROOT ROT

0

BLACK ROT

0

CERCOSPORELLA LEAF SPOT

0

POWDERY MILDEW

0

BLACK LEG

0

RING SPOT

YELLOWS

0

OTHER (Specify)

0

CLUBROOT

1

WHITE BLISTER

0

BOTTOM ROT

0

DOWNY MILDEW

0

VERTICILLIUM WILT

0

CAULIFLOWER MOSAIC

0

TURNIP YELLOW MOSAIC

0

WIRE STEM

8. OTHER RESISTANCE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

2

"BUTTONING"

0

"BLINDNESS"

2

"RICEYNESS"

0

"WHIPTAIL"

0

INSECT (Specify)

9. INDICATE A VARIETY THAT MOST CLOSELY RESEMBLES THAT SUBMITTED:

CHARACTER	VARIETY	CHARACTER	VARIETY
MATURITY		PLANT COLOR	Dok Elgon
ADAPTATION	Dok Elgon	CURD SIZE	Dok Elgon
PLANT HABIT	Dok Elgon	CURD SHAPE	Dok Elgon
PLANT SIZE	Dok Elgon	CURD COLOR	Dok Elgon

REFERENCE:

Nieuwhof, M. 1969. Cole Crops → World Crop Series, Leonard Hill.

COMMENTS: